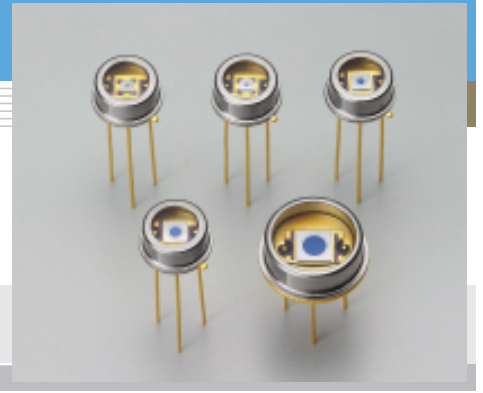


# Si APD

## S8890 series

Long wavelength type APD



### Features

- High sensitivity
- High gain
- Low terminal capacitance

### Applications

- YAG laser detection
- Long wavelength light detection

### ■ General ratings / Absolute maximum ratings

Type No.	Dimensional outline/Window material *1	Package	Effective active area size *2 (mm)	Effective active area (mm <sup>2</sup> )	Absolute maximum ratings	
					Operating temperature Topr (°C)	Storage temperature Tstg (°C)
S8890-02	①/K	TO-5	φ0.2	0.03	-20 to +85	-55 to +125
S8890-05			φ0.5	0.19		
S8890-10			φ1.0	0.78		
S8890-15			φ1.5	1.77		
S8890-30	②/K	TO-8	φ3.0	7.0		

### ■ Electrical and optical characteristics (Typ. Ta=25 °C, unless otherwise noted)

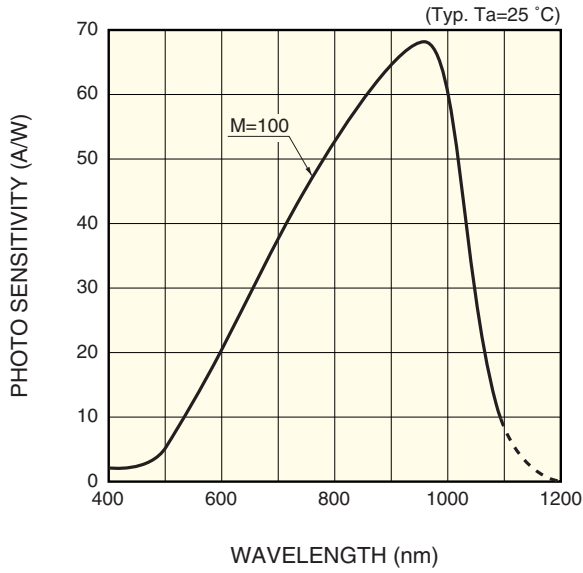
Type No.	Spectral response range λ (nm)	Peak *3 sensitivity wavelength λp (nm)	Breakdown voltage VBR ID=100 μA		Temp. coefficient of VBR (V/°C)	Dark *3 current ID		Terminal *3 capacitance Ct (pF)	Cut-off *3 frequency fc RL=50Ω (MHz)	Excess*3 noise figure x λ=800 nm	Gain M λ=800 nm
			Typ. (V)	Max. (V)		Typ. (nA)	Max. (nA)				
S8890-02	400 to 1100	940	500	800	2.5	0.2	2	0.2	280	0.3	100
S8890-05						1.5	15	0.5	240		
S8890-10						5.0	50	1.5	230		
S8890-15						10.0	100	2.5	220		
S8890-30						15.0	150	8.0	220		

\*1: K: borosilicate glass

\*2: Area in which a typical gain can be obtained.

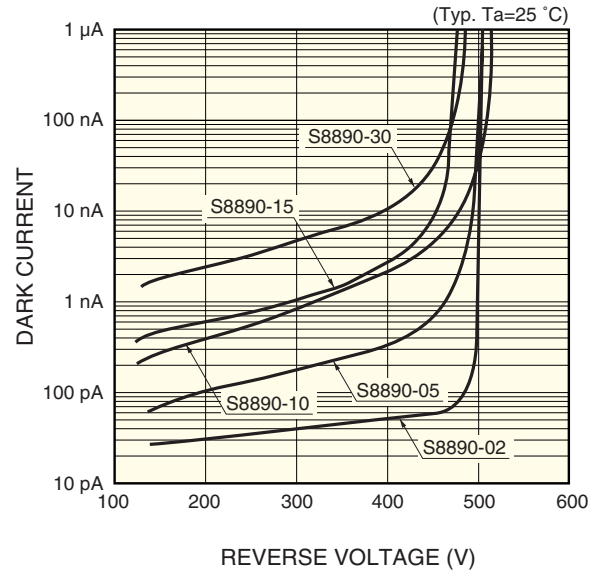
\*3: Values measured at a gain listed in the characteristics table.

■ Spectral response



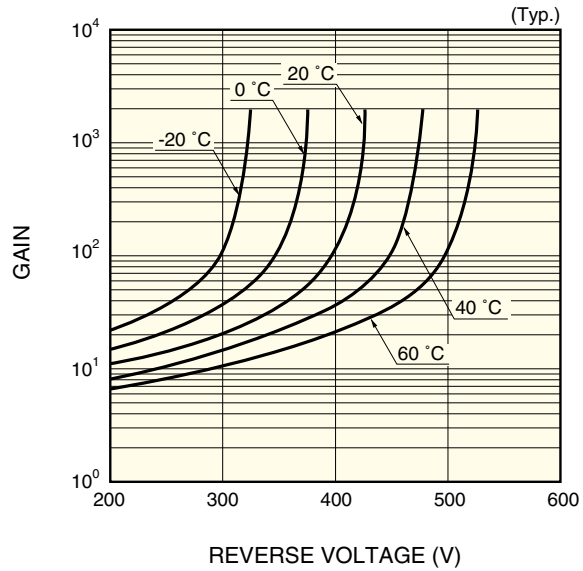
KAPDB0064EA

■ Dark current vs. reverse voltage



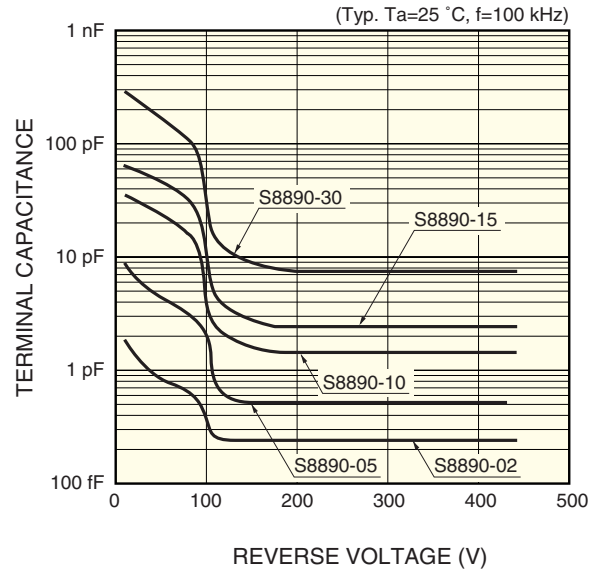
KAPDB0065EA

■ Gain vs. reverse voltage



KAPDB0066EA

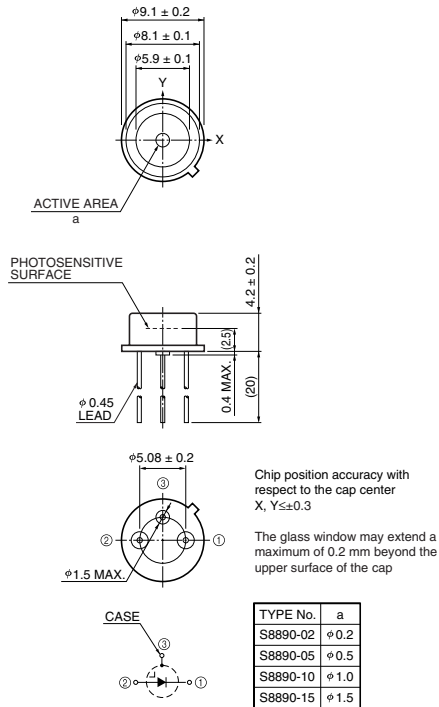
■ Terminal capacitance vs. reverse voltage



KAPDB0067EA

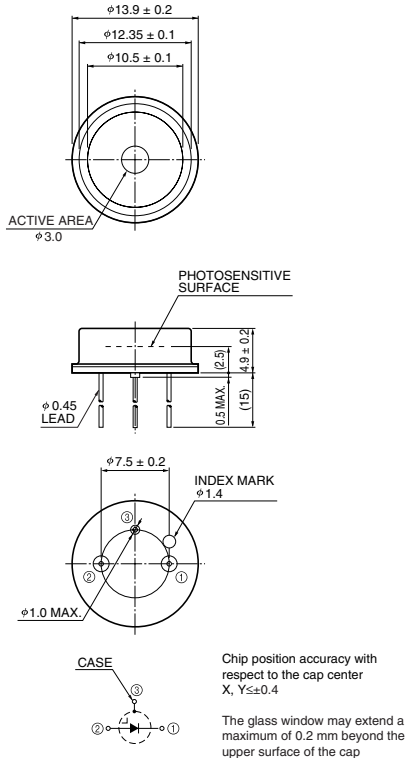
Dimensional outline (unit: mm)

① S8890-02/-05/-10/-15



KAPDA0024EA

② S8890-30



KAPDA0025EA

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